User Manual for SMiT's CA Module

1 Introduction to CA Module

1.1Purpose

CA Module stands for the Conditional Access Module in the receiving system of a digital TV. It works with the set-top boxes for digital TVs or integrated digital TVs together to receive encrypted digital programs. The physical interface between STB (Set-Top Box) and IDTV (Integrated Digital TV) is PCMCIA.

1.2Specifications of CA Module

◆Physical characteristics:

Dimensions: Type II PCMCIA card
100 mm x 58 mm x 5 mm
(Length x Width x Depth)

Connector: 68-pin PCMCIA slot;

Enclosure structure: Compact structure designed for assembly;

◆Interface protocols:

CI interface protocols: In full compliance with DVB-CI Profile 1 protocol and PCMCIA specifications;

smart card interface protocols: Build-in Smart Card reader, in compliance with ISO7816;

◆Electrical characteristics:

Operation voltage: 4.5V ~ 5.5V;

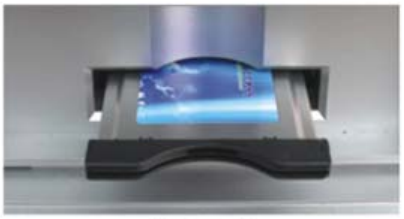
Operation current: <150mA (transient current fluctuation may occur during operation).

2Installation of CA Module

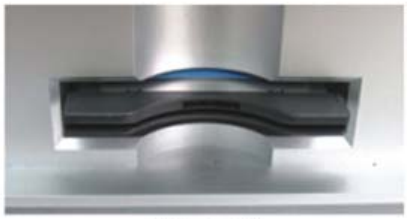
Taking IRDETO Module for example, the installation method is described later in this section. Installation methods of other CA Modules are similar.

First, insert the CA Module carefully into the set-top box, integrated digital TV, or the CI slot of the PCI card. Make sure the side bearing the IRDETO label shall face upward. Then, insert the smart card of the digital TV into the CA Module, and make sure the side of the smart card with the sheet metal shall face the side of the CA Module bearing the "IRDETO conditional receiving system" label (usually the thicker side).

The installation is shown in the following diagram:

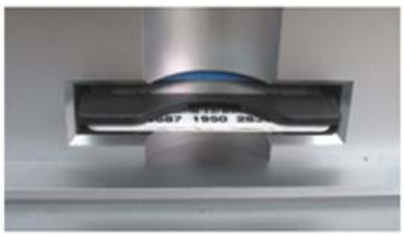


Step 1



Step 2

Step 3



Step 4

Make sure that the CA Module is fully inserted, and then turn on the TV. At this time, the TV s creen will show CA Module initialization information. The user can choose to enter the digital TV menu to view module information through the remote control. If CA Module initialization process completed normally, the user can see one slot displays IRDETO. Click the menu item and the user can enter the main menu of the CA module. Up till now, the CA Module installation is completed.

ATTENTION:

★It is recommended to insert the CA Module first and then the smart card. If you insert the smart card and CA Module at the same time, it may cause insertion difficulty due to misplacement.

★The CI slots of some TVs are not in horizontal position. Pay attention to labels on the TV.

3 Description of CA Module Menus

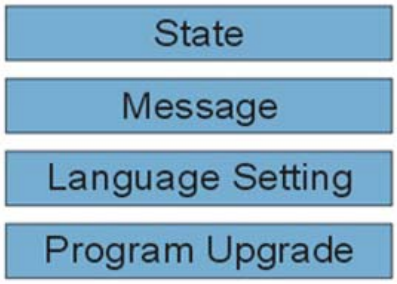
Taking IRDETO Module for example, the CA Module menus are described below. Other CA Modules have similar menus.

3.1 Main Interface

The user can enter the main interface of the CA Module to view CA Module information or to set related parameters. The operation steps are as follows:

Step 1: Select to enter the digital TV menu th-

rough the remote control;
Step 2: Select to enter CI module information in the digital TV menu;
Step 3: The user will find the module information which shows the state information of two slots. Select the slot marked as "Irdeto Access" and press <OK>. The main interface of IRDETO appears.
The main interface is shown as follows:



3.1.1 State

Enter the State menu and the user can view such options as CA Module State, CI Module State, LOADER State and Exit.
1). Select the CA Module State option in the main interface and the user can view such options as Smart Card State, Program Information, and Monitor.
◆Smart Card State
To view related set information of the smart card, including smart card number, type, version number, state, nation, and to update the information and exit.

◆**Program Information**

To view related set information in the transport stream, including program information, update and exit.

◆**Monitor**

To view or display EMM PID, ECM and exit.

2). Select the"CI Module" option in the main interface and the user can view the informati-on related to the CI module state.

3). Select the"Loader State" option in the main interface and the user can view the information related to Loader state.

3.1.2Message

Select the Message option in the main interfa-ce to browse all e-mails. The user can read an e-mail, delete an e-mail and delete all e-mails by pressing the <OK> key. Press <Back> to close the display.

3.1.3Language Setting

This option can be used to set the language of CA Module menus. At present, two languages are available: Chinese and English.

3.1.4Program Upgrade

Select the "Program Upgrade" option in the main interface and the user can choose to st-art program downloading in OTA mode, start program downloading from the serial port, or to exit.